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Environmental Health

## FOOD ESTABLISHMENT PLAN REVIEW AND APPROVAL FORM<sub>(rev.3/02)</sub>

<input type="checkbox"/> New	<input type="checkbox"/> Remodeled or Altered	<input type="checkbox"/> Planning & Zoning Approval	Environmental Health Specialist Reviewing Plans
NAME		ADDRESS	PHONE
Establishment			
Owner/Applicant			
Operator			
Designer/Equipment Supplier			

Establishment Type: <input type="checkbox"/> Food Service (605) <input type="checkbox"/> Retail Market (610) <input type="checkbox"/> Food Processor (615) <input type="checkbox"/> Mobile (602) <input type="checkbox"/> Other: _____ ( )	Menu: Full menu to be attached. (Menu changes may require additional equipment.)	Risk Category assigned (by EH Staff):  <input type="checkbox"/> Low  <input type="checkbox"/> Medium  <input type="checkbox"/> High		
Seating Capacity	Sq. Footage	No. Employees Per Shift	Date of Opening	Hours of Operation

- A. **Submit plans prior to construction.** Properly prepared plans and specifications for construction, remodeling, or alteration must be submitted to the District Health Department for review and approval. Such plans should include a floor plan of food establishment, plumbing and mechanical plans, and equipment list with make, model and specifications. **[Section 910.01 - Rules Governing Food Safety and Sanitation Standards for Food Establishments (UNICODE), July 1, 1998 and subsequent revisions]**
- B. **Submit**, if applicable, scale drawing of sewage system, well construction.
- C. **APPROVAL of the plans and specifications is required *PRIOR* to the start of construction/remodel.**
- D. **Submit** a Food Establishment License application fifteen (15) days prior to anticipated opening. The license fee must accompany the application. **(Sec. 920.01)** (Low risk establishments do not submit fee with application; if the operation is determined to be low risk, it is not required to be licensed nor inspected).
- E. **Preoperational/Final inspection:** The District Health Department must be notified of a request for preoperational inspection **fifteen (15) days BEFORE** anticipated opening of the establishment. **(Sec. 910.05)**
- F. **Separate approvals:** Contact the local building, fire, plumbing and electrical departments for their requirements. If alcoholic beverages are to be sold, contact the Alcohol Beverage Control Bureau (Idaho Department of Law Enforcement) for approval.

Plans reviewed (date): \_\_\_\_\_ Approved by: \_\_\_\_\_  
Environmental Health Specialist

**Note: After plans are reviewed and approved, applicant must sign final page accepting responsibility and verifying that it is understood that the establishment will be built in accordance with the approved plans.**

Final = Item approved during final inspection (by EH staff)

Plans = Plans or modifications satisfy items

N/A = Not applicable to this establishment

Food Establishment

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FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Convenient and adequate storage, display, and preparation facilities for ice, frozen food (0-10EF), cold foods (<45EF), hot foods (>140EF), other foods and foods on display. Adequate dry food storage provided. (320).
			2. Protection from dust, flies, flooding, splash and overhead leakage. (200.07)
			3. Storage provision to keep all food in non-waterproof containers a minimum of 6" above floor. Bare wood allowed only in dry goods storage area, unopened foods. (200.07.b)
			4. Provision for attached thermometers for all refrigerators, freezers and heating units. Metal stem thermometer for internal food temperatures. (500.12)
			5. Sneeze guards properly designed. (Measure 54" to 60" from floor to represent customer mouth height. Guard must block line between mouth and food on display, including end plates) (200.04.b)
			6. Dipper wells provided for ice cream scoops (frozen desserts). (200.06.g)

COMMENTS:

#### B - FOOD EQUIPMENT AND UTENSILS (500, 540, 700)

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. ALL EQUIPMENT shall bear the <b>NSF SEAL OR be designed to meet the NSF CRITERIA.</b> (not painted, durable, smooth, non-absorbent, non-corrosive, easy-to-clean, easily movable, rounded internal corners. Provide list. NO HOME-TYPE. (500 and 500.08)
			2. All used or existing equipment requires approval prior to installation; MUST MEET CODE (500.16). DOMESTIC TYPE EQUIPMENT NOT ALLOWED (500.08).
			3. Counter-type equipment: movable, on 4"+ legs; or sealed to counter. (500.15.c)
			4. Floor-type equipment: movable, on 6"+ legs; or sealed to floor/base. (500.15.d)
			5. Raised bases or platforms to be smooth material or masonry sealed to be non-absorbent. (700.01.a)
			6. Space between units or walls closed; or opened sufficient distance for easy cleaning. (500.15.e)
			7. Aisles - sufficient width: minimum 36"; 42" for two or more workers; wider for mobile equipment. (500.15.b and Uniform Building Code)
			8. Food/vegetable preparation sink provided (if applicable) - indirectly wasted to sewer with a one-inch air gap. (500.11; 600.02.d)

#### DISH AND UTENSIL WASHING AND SANITIZATION

			9. Adequately sized multi-use utensil and pot wash sinks for manual dishwashing. (500.09.b)
			10. Properly designed drainboards or dish tables provided for soiled and clean utensils. (500.09.f,g; 500.10.e,f)
			11. Dish machine type: Low temperature, chemical feed " ; or High temperature " Pre-rinse and scraping sink required with mechanical dishwasher. (520.05.b) 1/4" IPS (Iron pipe size) valve for pressure gauge required upstream of the final rinse control valve for high temperature machines. (500.10.c)
			12. Warewasher machine(s) provided with a readable data plate indicating the machine's operating specifications: Temperature, pressure and conveyor or cycle speed. Machine make _____; Model number: _____ (500.10.i)

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Food Establishment

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FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			13. Accurate temperature gauges and thermometers provided; and chemical test kit provided for sanitizer. (500.12 & 13)
			14. Chemical sanitizer container for dishwasher readily accessible for filling. (500.10.g)
			15. Storage for utensils, etc. 6"+ above floor, or in closed cabinets. (540.02)
			16. Proper storage and dispensers for single service articles. (540.05)

Comments: \_\_\_\_\_

### C - WATER SUPPLIES AND SEWAGE DISPOSAL (520, 600, 700)

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Public water supply (Name of approved supplier/system.) _____ (600.01)
			2. Private supply type: _____ Treatment: _____ <b>PLANS AND SAMPLE MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL INSPECTION.</b> (600.01)
			3. Hot and cold water provided under pressure to all fixtures. (600.01 & 700.04.d)
			4. 140EF water capacity _____ gallons. (600.01 - adequate) Recovery rate: _____ gals/EF degree rise
			5. 180EF water and/or booster heater for high temp dish machines. (520.10)
			6. Public sewer - name: _____ (600.02)
			7. Septic system or other type disposal. <b>PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL INSPECTION.</b> (Rules for Subsurface Disposal call for <u>AIR COOLED</u> ice making equipment, refrigeration equipment and wok ranges.) (600.02)
			8. Grease interceptor or trap sized in accordance to Uniform Plumbing Code, and located to be easily accessible for cleaning. (600.02.c & e)

Comments: \_\_\_\_\_

### D - PLUMBING (600 & 700.04)

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. All plumbing of safe materials, sized, installed in accordance with the Uniform Plumbing Code (UPC). (600.01)
			2. Water flushed walk-in box floor sloped to proper drain. Drain outside walk-in box. (UPC 801.2)
			3. Condensate wastes to floor sink or approved hub drain outside walk-ins. (UPC 801.2)
			4. Cooling and air-conditioning equipment separated by an airbreak; all food equipment separated from the drainage system by a full air gap. (UPC 801.2)
			5. Floor sinks must be 50% exposed if under equipment, for cleaning. (UPC 804.1) Floor sinks or drains not enclosed in cabinets - may have unseen flooding, humidity damage. Box out with cabinet base or toe kick AND base coving. (Not a <i>UNICODE</i> requirement - good manufacturing practice. (GMP)
			6. Drain lines do not splash or flood floors. (UPC 804.1)

° BACKFLOW AND BACK SIPHONAGE PROTECTION FOR: (UPC 603.0)»

			7. Chemical reservoir station: PVB 12" above (UPC)
			8. Dipper wells: air gap supply line: open (indirect) drain (600.02.d)
			9. Dishwasher: air gap fill vacuum breaker rinse line; open (indirect) drain. (600.02.d) (No direct drain unless in compliance with 600.d.ii)
			10. Food sinks for draining/washing ready-to-serve food: open (indirect) drain. (600.02.d)
			11. Garbage grinder/disposal/drainboard scupper: vac. breaker supply water (UPC 603)
			12. Hood, self-clean type: AVB above hood and 6" above chemical injection (UPC 603)
			13. Ice bin and machine: open (indirect) drain; air gap supply line to reservoir.
			14. Janitorial faucets/hose bibs/threaded faucets: vacuum breaker required if threaded faucet for hoses. (UPC 603.3.7)
			15. Hot water and booster heaters=pressure relief: air gap 6" to 24" (UPC 608.5)
			16. Soap dispensers located on faucets: vacuum breaker required (UPC 603.2.6)
			17. Soda fountain water line to carbonator: reduced pressure device required, no metal pipe downstream (600.01.k) Indirect waste drain.

Comments: Idaho State Plumbing Board amended their 2000 UPC adoption to require indirect waste on **all** sinks in kitchen except for hand and mop sink. Also all indirect wastes shall be **airgapped**. (2/1/02).

**E - TOILET AND HAND-WASHING FACILITIES FOR PATRONS AND EMPLOYEES**  
**(700.04, 05) (Uniform Building Code)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Patron toilet rooms located so that customers do not pass through kitchen. (700.05.c)
			2. Employee toilet rooms and patron toilet rooms: ____ Combined ____ Separate
			3. Fully enclosed toilet rooms, self-closing doors. (700.05.b)
			4. Adequate ventilation - ____ Window ____ Mechanical (700.05.e)
			5. Lavatory sinks with hot and cold water through mixing faucets. (700.04.d) (15-second water flow required if faucet has automatic shut-off)
			6. Adequate number of urinals, water closets and lavatories in toilet rooms. (700.05.a) ____ Female ____ Male
			7. Waste receptacles provided. (600.03.q)
			8. Handsoap, paper towels, hand dryers or continuous towel rollers provided for handsinks. (700.04.e,h,i)

Comments: \_\_\_\_\_

**F - EMPLOYEE HANDWASHING FACILITIES (700.04-05)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Adequate; conveniently located in food preparation area and service areas. No other use. (700.04.a,b,h)
			2. Food preparation area. (700.04.b.) Number provided: ____
			3. Dishwashing area. (Pot sink not proper.) (700.04.b,f) Number provided: ____
			4. Wait station (All must have sink.) (700.04.b) Number provided: ____

			5. Handsoap, paper towels, hand dryers or continuous roll towels provided for handsinks. (700.04.e,h,i)
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Comments: \_\_\_\_\_

**G - GARBAGE AND REFUSE (600.03, 700)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Inside containers adequate, convenient, durable and leakproof. (600.03)
			2. Outside garbage area is concrete or asphalt, smooth and sloped to drain. (600.03.f)
			3. Can cleaning/mop sink. Service sink, floor-style mop sink or slab pitched to a drain with hot/cold water provided. (700.10)
			4. Mop/broom storage provided, rack or hooks for hanging mops to dry. (700.12)

Comments: \_\_\_\_\_

**H - VERMIN CONTROL (600.04)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Outer openings screened (vents, windows) with 16 mesh or smaller screen; outer doors self-closing. (600.04.c)
			2. Air screens, plastic curtains provided on doors if needed. (600.04.d.iii)
			3. Building rodent proof. Wall openings closed. (600.04.e)

Comments: \_\_\_\_\_

**I - STRUCTURAL DESIGN AND MATERIALS (700.01 & 02)**

	AREA	FLOOR*	BASE**	WALL ***	CEILING***
	Dining Area				
	Kitchen				
	Walk-in Refrigerator				
	Dishwashing Area				
	Food Storage Areas				
	Toilet Rooms****			4 foot wainscot	
	Locker Rooms/Areas				
	Janitorial Room/Area			4 foot wainscot	
	Stairway (in kitchen or storage must have cleanable, non-absorbent surface.)				
	Outside Areas (700.09) - walking and driving areas surfaced to minimize dust and pooling of water				

Comments: \_\_\_\_\_

\*Floors and floor coverings shall be durable sealed concrete, terrazzo, quarry tile, ceramic tile, durable grades of vinyl or plastic tile or tight-fitting wood impregnated with plastic. Floors of nonrefrigerated dry food storage need not be sealed. Carpet may not be used in

food preparation or processing areas, handwashing areas and toilet rooms where urinals and toilets are located. (700.01)

**\*\*Base** - junctures between walls and floors shall be coved and constructed so that no seam will be open more than 1/32 inch. Where water-flush cleaning methods, the floor shall be graded to a drain, coved and sealed. (700.0-1.f)

**\*\*\*Walls, wall coverings and ceilings** shall be nonabsorbent, finished and sealed to be easily cleanable and light colored in food preparation and processing areas, food storage areas, warewashing areas, walk-in refrigerators, dining areas, food display areas, retail sales areas, food service areas, dressing rooms, locker rooms, toilet rooms, servicing areas, and refuse storage rooms. Walls and ceilings of nonrefrigerated dry food storage areas and rooms need not be finished and sealed; ceiling studs, rafters may be exposed and rough-surfaced materials used in dining areas. Acoustical materials shall not be used in food preparation and processing rooms, warewashing rooms and refuse storage rooms. (700.02)

**\*\*\*\*Floors and walls in restrooms** shall be smooth, hard, nonabsorbent surfaces such as Portland cement, concrete, ceramic tile or other approved material. Floor material must extend upward onto the walls at least 5 inches. Walls shall be of said materials not adversely affected by moisture. Bars, paper dispensers, soap holders that are provided on or within walls shall be installed and sealed to protect structural elements from moisture. (Uniform Building Code, 807.1 & 2)

**J - LIGHTING, Artificial/Natural (700.07)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. All working areas - 30 ft. Candles (700.07.ii)
			2. Toilet rooms, equipment and utensil storage areas, packaged food and fresh produce sales areas - 20 ft. Candles (700.07.iii)
			3. All other areas, 30" from floor - 10 ft. Candles (700.07.i)
			4. Covered light provided in all food handling, dishwash, open food storage, utensil storage and single service storage areas. (700.07.c)
			5. Lights in hoods UL approved. (National Fire Protection Administration)

Comments: \_\_\_\_\_

**K - VENTILATION (700.08)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Sufficient ventilation to all rooms to keep them free of excessive heat, steam, grease, vapors, condensation, obnoxious odors and fumes which are a result of the food operation. (700.08.a) Hood ventilators shall be designed, constructed and installed according to the Uniform Mechanical and Building Codes. (700.08.g)
			2. <b>Type of hood:</b> _____ Type I (Grease filters/fire suppression _____ Type II (No grease produced) _____ Wall hung _____ Island _____ Back-shelf ventilator _____ Self-cleaning  <b>Equipment under hood:</b> _____ Charbroiler _____ Grill, range _____ Deep-fat fryer _____ Salamander _____ Oven, pizza oven, dishwasher _____ Cheesemelter  <b>Cfm exhausted:</b> _____ length X _____ width X _____ multiplier = _____ cfm  <b>Is the hood and exhaust system listed?</b> _____ Manufacturer and Model # _____ (If a listed unit, then manufacturer's listing terms and installation instructions are used, no calculations on exhaust are required.)  <b>Make-up air:</b> _____ cfm into hood _____ cfm into kitchen (interlocking switch with exhaust)  <b>Grease filters:</b> Rating _____ cfm Size: _____ X _____ Number _____  <b>Duct size(s):</b> cfm exhausted ) proposed velocity = _____ sq. ft. (X 144 = sq. in.)  <b>Drawings provided:</b> _____ elevated drawing of hood and duct system _____ floor plan showing hood, make-up air registers, equipment

			3. Hood construction (NSF). Materials: 22 gage-Type I, 24 gage-Type II. Welded joints & seams, 16 gage for Type I (UMC 508.2) Hood exhaust outlets terminating two feet above roof, ten feet from any air intake openings. (UMC 507.11)
			4. Restrooms vented, or with openable, screened windows (to keep them free of objectionable odors). (700.05.e)

Comments: \_\_\_\_\_

**L - OTHER OPERATIONS (580, 700, 800)**

FINAL	PLANS	N/A	DESCRIPTION OF CRITERIA AND/OR REQUIREMENTS
			1. Location of employee coat storage, lockers or dressing rooms _____. (700.06)
			2. Cleaning materials/pesticides are not stored near food, food contact equipment or containers, paper products. Separate storage, closed cabinets for pesticides. (800)
			3. Operation is separated from living quarters by self-closing door. (700.15)
			4. Laundry equipment (washer/dryer) is not in food preparation or serving areas. (580)
			5. Utility service lines and pipes not installed on the floors, nor unnecessarily exposed on walls or ceilings in food preparation areas, warewashing areas, open food storage areas, walk-ins, food display areas, retail sales areas, dining areas, food service areas, dressing rooms, toilet rooms, vestibules or refuse storage areas. (700.11)

Comments: \_\_\_\_\_

*APPROVAL of the plans and specifications does not constitute endorsement or acceptance of the completed establishment, structure or equipment installation. Any changes or deviations from these approved plans must be submitted in writing and approved by the department.*

**IF NOT OTHERWISE MENTIONED, THE RULES GOVERNING FOOD SAFETY AND SANITATION STANDARDS FOR FOOD ESTABLISHMENTS (UNICODE) SHALL APPLY.**

I have read and understand and agree to comply with the above listed requirements and accept responsibility for any changes needed when not in compliance.

Signed:

Firm/Company:

Date:

Copy of plan review given to:

District Health Department Reviewer :

Date:

# ADDENDUM TO FOOD ESTABLISHMENT PLAN REVIEW

## COMMERCIAL KITCHEN HOODS

### Uniform Mechanical Code, Section 508 Air Flow Formulas

Type of Equipment Under Hood	Canopy Hood with 4 Sides Exposed (Island Hood)	Canopy Hood with 3 or less Exposed Sides	Canopy Hood Alternative Formula (Using PD)	Non-Canopy Back-Shelf Ventilator System
<b>High Temp/Smoke:</b> Charcoal or Grease burning charbroilers	<b><math>Q = 300 A</math></b>	<b><math>Q = 200 A</math></b>	<b><math>Q = 100 PD</math></b>	<b><math>Q = 300 L</math></b>
<b>High Temp:</b> Deep fat fryers	<b><math>Q = 150 A</math></b>	<b><math>Q = 100 A</math></b>	<b><math>Q = 100 PD</math></b>	<b><math>Q = 300 L</math></b>
<b>Medium Temp:</b> Grills and Ranges	<b><math>Q = 100 A</math></b>	<b><math>Q = 75 A</math></b>	<b><math>Q = 50 PD</math></b>	<b><math>Q = 300 L</math></b>
<b>Low Temp No Grease:</b> Ovens, Pizza Ovens, Dishwashers	<b><math>Q = 75 A</math></b>	<b><math>Q = 50 A</math></b>	<b><math>Q = 50 PD</math></b>	

**Where:** Q = Quantity of air in cubic feet per minute (cfm)  
A = Horizontal surface area of hood in square feet  
D = Distance in feet between cooking surface and lower lip of hood  
P = That part of perimeter of hood that is open, in feet  
L = Linear feet of cooking surface (back-shelf ventilator)

**Example:** Wall hung canopy hood over a charbroiler, sized 8' X 4', with two sides exposed. First use  $Q=200A$  /  $Q=200 \times 32$  /  $Q=6400$  cfm

Using the alternate formula  $Q=100 PD$ , with 3.5' between cooking surface and bottom of hood.  $Q=100 \times 8 + 4 (12) \times 3.5 = 4200$  cfm



### DUCT SIZING (UMC, 507.8)

Divide the air to be exhausted (cfm) by the proposed velocity to be drawn through the duct (fpm). Velocity must be a minimum of 1500 fpm and not exceed 2500 fpm. 1800 fpm is considered ideal.

**Example:** 6400 cfm ) 1800 fpm = 3.55 sq. ft. X 144 sq. in. per sq. ft. = 511 sq. in.

The duct size would then be 23" X 23" ( or 22 " X 24", or 20" X 26")  
If round duct is to be used, size with this chart:

Round Duct Diameter	Area	
	Sq. In.	Sq. Ft.
10 inches	78.54	.545
12 inches	113.1	.785
13 inches	132.7	.9218
14 inches	153.9	1.069
15 inches	176.7	1.227
16 inches	201.01	1.396
18 inches	254.4	1.767
19 inches	283.5	1.969
20 inches	314.1	2.182
21 inches	346.3	2.405
22 inches	380.1	2.640
24 inches	452.3	3.241
25 inches	490.8	3.409
27 inches	572.5	3.976
28 inches	615.7	4.276

### MAKE-UP AIR (UMC 508.10)

Required volume of air to be returned to the room, connected with the hood exhaust system by an interlocking electrical switch -- must equal the air exhausted. May be in registers in a compensating hood, or registers in the kitchen -- or 80% through compensating hood and 20% from kitchen.

### GREASE FILTERS OR EXTRACTORS (UMC 508.5)

Mesh or baffle-type filters for Type I hoods are listed with fpm ratings, usually ranging from 400-600 fpm. It is necessary to get the manufacturer's specifications to get this rating. Take the air to be exhausted ) the fpm rating to give you the filter area required.

**Example:** 3600 cfm ) 600 = 6 sq. ft.  
Take a 16" X 16" filter = 256 sq. in. ) 144 = 1.77 sq. ft.  
Then take 6 sq. ft. needed ) 1.77 sq. ft. = 4 filters required.